REMARKS

Applicant respectfully requests reconsideration of the present application in view of the foregoing amendments and in view of the reasons that follow. Claims 60-77 have been canceled. Claims 78-104 have been added. Claims 78-104 are pending in this application.

I.   Rejection of Claims 60-77 Under 35 U.S.C. § 101

In section 3 of the Office Action, Claims 60-77 were rejected under 35 U.S.C. § 101 as being directed to non-statutory subject matter. Claims 60-77 have been canceled rendering these rejections moot. As a result, Applicants respectfully request withdrawal of the rejection of Claims 60-77 under 35 U.S.C. § 101.

II.   Rejection of Claims 60 and 63-77 Under 35 U.S.C. § 112, second paragraph

In section 6 of the Office Action, Claims 60 and 63-77 were rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 60 and 63-77 have been canceled rendering these rejections moot. As a result, Applicant respectfully request withdrawal of the rejection of Claims 60 and 63-77 under 35 U.S.C. § 112, second paragraph.

III.   Rejection of Claims 60-77 Under 35 U.S.C. § 103(a)

In Section 9 of the Office Action, Claims 60-77 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 4,730,340 to Frazier, Jr. (Frazier) or U.S. Patent No. 4,984,247 to Kaufmann et al. (Kaufmann) in view of U.S. Patent No. 5,031,173 to Short et al. (Short). Though Applicant does not necessarily agree with the rejections, Claims 60-77 have been canceled rendering these rejections moot. Therefore, Applicant respectfully requests withdrawal of the rejection under 35 U.S.C. § 103(a).

IV.   Allowance of Added Claims 78-104

Applicants respectfully submit that new Claims 78-104 are allowable over the art cited by the Examiner. Frazier, Kaufmann, and Short, alone and in combination, fail to teach, suggest, or describe the elements of at least independent Claims 78 and 92. Additionally,

Claims 78-104 are patentable for at least the reasons that Claims 19-28 of U.S. Patent No. 5,210,770 were found patentable.

Independent Claim 78, with emphasis added through underlining, recites in part:

> modulating a plurality of portions of stored information with corresponding selected subsets of the stored set onto a sinusoidal electromagnetic carrier, wherein the subsets correspond to nodes in a multi-node communication network, and further <u>wherein at least one subset of the selected subsets contains a plurality of the binary spreading-code sequences</u>;

Independent Claim 92, with emphasis added through underlining, recites in part:

> a modulator configured to modulate a plurality of portions of stored information with subsets selected from a stored set of binary spreading-code sequences onto a sinusoidal electromagnetic carrier, wherein the subsets correspond to nodes in a multi-node communication network, and further <u>wherein at least one subset of the selected subsets contains a plurality of the binary spreading-code sequences</u>;

Frazier describes:

> A hybrid array correlator is configured of a cascaded array of individually identical correlator cells, through which a preselectable reference symbol sequence, identifiable with a symbol to be acquired, is successively clocked, from cell to cell and then recirculated back to the beginning or first cell of the array.

(Abstract). Frazier further states:

> Now, if one were to employ a first prescribed security code for an entire code validity interval and then suddenly switch to a completely different security code for the succeeding code validity interval, and so on, this "hard edged" changeover may create severe problems at the receiver, since the receiver correlator operates asynchronously; yet obvious precise synchronization of the "hard edged" spreading sequence changeover would be necessary to ensure data acquisition. To circumvent this problem of hard edged sequence changeover while still satisfying the code validity interval criteria, the present invention employs a technique of changing the respective spreading sequence by way of which each symbol is defined while satisfying the code validity interval requirement,

> yet without the need for complex synchronization equipment at the receiver. <u>More particularly, in accordance with a further aspect of the present invention, within each successive code validity interval, the spreading sequence for each symbol is altered or changed in a gradual manner, over the duration of the interval, into a new spreading sequence by which the symbol is to be defined in the next successive code validity interval</u>. This change of the spreading sequence over the duration of the code validity interval is slow enough to enable correlation at the receiver, wherein a similar change in the spreading sequence is taking place.

(Col. 12, line 62-col. 13, line 20, with emphasis added through underlining). Thus, Frazier describes a transition from a first spreading sequence to a second spreading sequence during a code validity interval. However, Frazier fails to teach, suggest, or describe at least "wherein at least one subset of the selected subsets contains a plurality of the binary spreading-code sequences" as recited in Claims 78 and 92.

Kaufmann describes:

> A base station (BS) and mobile user stations (MS) each with a transmitter (S), a receiver (E) for multipath reception and a control unit (ST) are provided in each cell. Exactly one set of several sequence sets of the auxiliary function used for spectrum spreading is allocated to each cell.

(Abstract). Kaufmann further states:

> Exactly one set from several sequence sets is allocated to each cell.
>
> Sequences from different sets must in pairs have the property that the absolute value of the normalized periodic cross-correlation functions is much less than one for all values. Non-synchronous DS interference signals are thereby sufficiently suppressed. It follows from this parameter that a sequence may only belong to one set and that versions of this sequence with a cyclic shift must not occur in any other set. PN sequences are types of sequences which satisfy these requirements, e.g. gold sequences and kasami sequences.

(Col. 6, lines 12-24). Thus, Kaufmann describes a single sequence set assigned to a cell. However, Kaufmann fails to teach, suggest, or describe at least "wherein at least one subset of

the selected subsets contains a plurality of the binary spreading-code sequences" as recited in Claims 78 and 92.

Short states a "composite signal is formed by simultaneously transmitting multiple asynchronous data bit sequences, that are coded with respective spreading codes, in a single channel; and a circuit is provided which decodes any bit b(x) in that composite signal." (Abstract). Short further states:

> In this system, there are four transmitting stations T1, T2, T3 and T4, and one receiving station R. Station T1 transmits a signal S1 which is an encoded sequence of data bits a1b1(0), a1b1(1), a1b1(2), etc. Symbol b1(n) represents the nth unencoded bit (n=0,1,2,. . .); symbol <u>a1 represents a spreading code which is unique to the station T1</u>; and symbol a1b1(n) represents their product. Similarly, station T2 transmits a signal S2 that is an encoded sequence of data bits in which each bit is multiplied by a second spreading code a2; station T3 transmits a signal S3 that is an encoded sequence of data bits in which each bit is multiplied by a third spreading code a3; and station S4 transmits a signal S4 that is an encoded sequence of data bits in which each bit is multiplied by a fourth spreading code a4.

(Col. 2, lines 18-33). Thus, Short describes a single spreading code assigned to a transmitter. However, Short fails to teach, suggest, or describe at least "wherein at least one subset of the selected subsets contains a plurality of the binary spreading-code sequences" as recited in Claim 78 and similarly recited in Claim 92.

As discussed above, Frazier, Kaufmann, and Short, fail to teach, suggest, or disclose all of the elements of at least independent Claims 78 and 92. Neither an anticipation rejection nor an obviousness rejection can be properly maintained where the references do not disclose all of the recited claim elements. The remaining claims depend from one of Claims 78 and 92. Therefore, Applicant respectfully requests allowance of claims 78-104.

Applicant believe that the present application is in condition for allowance. Favorable reconsideration of the application as amended is respectfully requested.
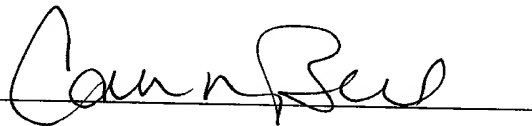
The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 19-0741. Should no proper payment be enclosed herewith, as by a check or credit card payment form being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 19-0741. If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicant hereby petitions for such extension under 37 C.F.R. §1.136 and authorizes payment of any such extensions fees to Deposit Account No. 19-0741.

Respectfully submitted,

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